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SHORTIA

A NEWSLETTER

OF THE

WESTERN CAROLINA BOTANICAL CLUB

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— PUBLISHED QUARTERLY
FOR THE CLUB —

EDITOR - HARVEY KROUSE

LITERARY CRITIC - VERA KROUSE
AND SECRETARY

- A Beginning -

Seemingly, by silent consensus, this publication was brought into existence during the Annual Meeting of the Club held at Carolina Village, January 30, 1975. By the same tacit agreement, the offer to edit it by the present editor was approved.

So, in this first issue an attempt is being made to present items of content, mostly of a botanical nature that, hopefully, will be of interest to the Club members. If the subjects have general appeal, contents of this type will set the pattern for the continued objectives of this Newsletter.

Participation by members is essential to the appeal and success of our Newsletter. Contributions of nature subjects of a wide variety are earnestly solicited. They can consist of personal experiences, botanical discoveries, excerpts from or complete published articles of related subjects. Due to space limitation, editing in some instances may be required.

The Club secretary has agreed to distribute copies of the Newsletter. Also being treasurer and mindful of expenses, he plans to hand distribute many copies--mailing only to members whom he cannot personally reach.

REPORT ON RARE PLANTS

by Harvey Hrouse

Three of us who participated in fall field trips to the top of Sugar Loaf Mountain observed a pure white-flowered form of Monkshood (Aconitum uncinatum) growing among a colony of typical purple ones.

Nowhere in the literature available to me was there any mention of a white form of this species. I sent a pressed specimen and several colored slides to Jim Massey, Curator of the Herbarium at Chapel Hill, who confirmed the plant was indeed A. uncinatum but with no record of the white form. He did mention that such a population had been reported from Jackson County, Iowa. Next year I shall send seeds to the North Carolina Botanical Garden for them to determine if they breed true.

In the same package I included a specimen of an iris found in Sherwood Forest. My first identification was Slender Iris (Iris prismatica) only growing in the sea coast counties and reported, but now extinct, in what was the East Flat Rock bog in Henderson County. Subsequently observing this species near the sea coast, I questioned my identification of the Sherwood Forest plants. But Jim Massey also keyed it to Iris prismatica--so it is rare for our area.

Listed by the North Carolina Department of Natural Resources as an endangered species in North Carolina is one of the arrowleafs (Sagittaria fasciculata), an aquatic plant. It is officially recorded as growing only in a ditch along the Southern Railroad near the General Electric plant in Henderson County.

Fearful that this station could be destroyed by trackage repairs, I obtained permission last fall to transplant some plants to similar habitats. Hopefully, they will survive since the railroad subsequently completely cleaned out the ditch.

HEAT GENERATED BY SKUNK CABBAGE (*Sagittaria foetidus*)
Condensed from March issue of Natural Science

Mostly prevalent in northern states, many of us have observed the very early appearance of the flowers (spathe and spadix) of the skunk-cabbage--sometimes before the snow has disappeared from the swamps.

If closely examined it will be found that a ring of snow has melted away from the flower. Heat generation by the emerging flower can only account for this striking occurrence.

Results of extensive experiments have developed some interesting facts:

- 1) Heat is generated by the enclosed spadix at its time of flowering, usually for two (2) weeks, when there is a rapid rate of oxygen absorption in the process of respiration.
- 2) Inside the spathe during this time period, temperatures are maintained over a range of 36° to 62°F. , in accordance with the outside temperature--providing the outside temperature stays above 32°F. Heavy sustained freezing will kill the ambitious flower.
- 3) During this thermal process the ill-smelling chemical oils of this plant are volatilized and permeate the surrounding air.
- 4) A certain species of spider takes advantage of this heated incubation pouch; mate and hatch an early brood of young.

ATTENTION, FERN LOVERS

Ralph Raymond reminds us that there is an American Fern Society. If you want to be informed about this group and its activities, write:

John T. Mickel, Curator of Ferns
New York Botanical Garden
Bronx, New York 10458